

CLAIMS

What is claimed is:

1. A project design method for automating a control sequence, in particular a motion sequence, in a configurable system with a plurality of components, the components capable of exchanging at regular time intervals during the control sequence information with another of the components via communication relationships, wherein
the system, based on a topology and a functionality of the components, selects exactly one system project design from a plurality of system project designs, with the selected system project design containing exactly one component project design for each component of the system, and designs each of the components in the system according to the corresponding component project design; and wherein
a particular component implements the communication relationship to the other components according to the component project design of the particular component.
2. The project design method of claim 1, wherein the topology and functionality of the components is communicated to the system by a user input.

3. The project design method of claim 2, wherein the user input for at least one component includes a default value of a mechanical and/or electrical functionality of the at least one component.
4. The project design method of claim 2, wherein the user input for at least one component includes a default value to cooperate mechanically and/or electrically with at least one additional component.
5. The project design method of claim 1, wherein the system automatically determines the topology and functionality of the components.
6. The project design method of claim 1, wherein the system automatically determines the topology of the components and aids a user in determining the system project design.
7. The project design method of claim 5, wherein a central unit reads component codes from the components, said component codes separately identifying the components, and determines the components based on the component code.

8. The project design method of claim 1, wherein the plurality of system project designs is centrally stored and the component project designs of the selected system project designs are transmitted to the components.
9. The project design method of claim 8, wherein the plurality of system project designs is stored in a central unit of the system.
10. The project design method of claim 8, wherein the plurality of system project designs is stored external to the system.
11. The project design method of claim 1, wherein the component project designs are stored in the corresponding components, and wherein a central unit transmits selection commands to the components for selecting the component project designs according to the selected system project design.
12. The project design method of claim 1, wherein the components activate the communication relationships established by the components based on a common activation command.
13. The project design method of claim 1, wherein the communication relationships conform to the IRTE protocol.

14. The project design method of claim 1, wherein at least the topology of the components is made available to an application program for the configurable system.
15. A configurable system for automating a control sequence, in particular a motion sequence, comprising:
 - a plurality of components capable of exchanging at regular time intervals during the control sequence information with another of the components via communication relationships,
 - means comprising a plurality of system project designs, said means selecting exactly one system project design from the plurality of system project designs, with the selected system project design containing exactly one component project design for each component of the system,
 - wherein a particular component implements the communication relationship to the other components according to the component project design of the particular component.
16. The system of claim 15, wherein the components are at least partially implemented as exchangeable modules.